

WHAT IS CLAIMED IS:

1. A servo track writing apparatus comprising:
a cantilevered head assembly including a servo head to write a servo pattern or information on a disc or discs supported on a spindle hub;
a merge assembly to operate the cantilevered head assembly and the spindle hub between a retracted position to load and unload the disc or discs and a merged position to encode servo information; and
a shroud proximate to a downstream region of the cantilevered head assembly along an operating sector of the cantilevered head assembly.
2. The servo track writing apparatus of claim 1 wherein the servo track writing apparatus includes at least one of an air dam downstream of the cantilevered head assembly or an air stripper upstream of the cantilevered head assembly.
3. The servo track writing apparatus of claim 1 wherein the servo track writing apparatus includes an air dam downstream of the cantilevered head assembly and an air stripper upstream of the cantilevered head assembly and the shroud is positioned in a gap between the air dam and the air stripper.
4. The servo track writing assembly of claim 2 wherein the at least one of an air dam or air stripper includes a plurality of plates spaced to form a gap therebetween and the disc or discs being rotatable in the gap between the plurality of plates.
5. The servo track writing apparatus of claim 3 including an actuator mechanism coupled to the air dam and the stripper to move the air dam and the

stripper between a retracted or open position to load and unload the disc or discs and a merged or closed position to write servo information to the disc or discs.

6. The servo track writing apparatus of claim 1 and further comprising a cam assembly including a plurality of fingers movable between a retracted position and a merged position to maintain separation of a plurality of discs to merge the cantilevered head assembly and the plurality of discs.

7. The servo track writing apparatus of claim 1 wherein the spindle hub is coupled to a spindle block and the cantilevered head assembly is coupled to a servo block and the spindle block and the servo block are operable between a retracted position and a merged position to form the merge assembly to load and unload the disc or discs and encode servo information and the shroud is coupled to one of the spindle block or the servo block.

8. The servo track writing apparatus of claim 1 wherein the spindle hub is supported relative to a stationary spindle block and the merge assembly includes a servo block movably coupled to a base or platform to movably support the cantilevered head assembly relative to the spindle block to merge the cantilevered head assembly relative to the disc or discs to encode servo information and to retract the cantilevered head assembly and the disc or discs to unload the disc or discs.

9. The servo track writing apparatus of claim 1 wherein one of the spindle hub or the cantilevered head assembly is supported relative to a stationary block coupled to a base or platform and the merge assembly includes a movable block having another of the cantilevered head assembly or the spindle hub supported relative thereto to merge the cantilevered head assembly relative to the disc or discs to encode servo information and to retract the cantilevered head assembly and the disc or discs to load and unload the disc or discs.

10. The servo track writing apparatus of claim 1 wherein the shroud is operable between a retracted position and an operating position to encode servo information and further comprising a shroud actuator assembly to operate the shroud between the retracted position and the operating position.
11. The servo track writing apparatus of claim 10 wherein the shroud actuator assembly is automated by a controller.
12. The servo track writing apparatus of claim 2 including the air dam movable between a retracted position and a merged position and the shroud is coupled to the air dam and movable therewith to position the shroud proximate to the disc or discs to write servo information to the disc or discs.
13. The servo track writing apparatus of claim 1 wherein the spindle hub is aligned to support the disc or discs in a vertical alignment relative to a base or platform of the servo track writing apparatus.
14. The servo track writing apparatus of claim 1 wherein the shroud includes a fin or fins extending therefrom.
15. A servo writing apparatus comprising:
 - a servo writer including a servo head to write a servo pattern or information to a disc or discs supported on a spindle hub orientated to support the disc or discs in a generally vertical orientation relative to a base or platform of the servo writing apparatus; and
 - a shroud downstream of the servo head along an operating zone of a cantilevered head assembly of the servo head .
16. The servo writing apparatus of claim 15 wherein the spindle hub removably supports a plurality of discs and the shroud has a dimension

extending between opposed inner and outer discs of the plurality of discs supported on the spindle hub.

17. The servo writing apparatus of claim 15 including an air dam downstream of the servo head and an air stripper upstream of the servo head and the shroud is positioned in a gap between the air dam and the air stripper.

18. The servo writing apparatus of claim 17 wherein the air dam and the air stripper are operable between a retracted or open position to load and unload the disc or discs on the spindle hub and a merged or closed position to write servo information on the discs or discs.

19. The servo writing apparatus of claim 15 wherein the shroud includes a fin or fins extending therefrom aligned with the disc or discs.

20. The servo writing apparatus of claim 15 wherein the shroud is movable between a retracted position to load and unload the disc or discs and an operating position proximate to the cantilevered head assembly.

21. A method of writing or encoding servo information on a disc or data storage media comprising steps of:

loading the disc or data storage media on a spindle hub;

rotating the disc or data storage media having a shroud located proximate to an operating zone of a cantilevered head assembly including a servo head to provide an upstream flow field and a downstream flow field relative to the cantilevered head assembly bounded at least in part by the shroud downstream of the cantilevered head assembly;

writing servo information or a servo pattern to the disc or data storage media; and

unloading the disc or data storage media from the spindle hub.

22. The method of writing servo information of claim 21 and after the step of loading the disc or data storage medium on the spindle hub comprising the step of:

merging the cantilevered head assembly and the disc or data storage medium to record servo information and retracting the cantilevered head assembly and the disc or data storage medium to unload the disc or data storage media.

23. The method of claim 21 and further comprising the step of:
moving the shroud between a retracted position and an operating position to load and unload the disc or data storage medium and to encode servo information or patterns on the disc or data storage media.

24. The method of claim 21 wherein the shroud is positioned in a gap between an air dam and a stripper and comprising the step of:
moving the air dam and the stripper between a retracted position to load and unload the disc or data storage media and a merged position to encode servo information.

25. The method of claim 21 wherein following the step of unloading the disc or data storage media further comprising the step of:
assembling the disc or data storage media in a data storage device.